

REMARKS

Claims 1-15, 17-18, and 20-23 are in the application. Claims 1, 4, and 20 are in independent form.

An IDS is provided which includes documents cited by the European Patent Office.

Objection. Claim 22 is amended to change "transistor" to "transistors."

35 U.S.C. 112. Rejected claim 16 is canceled.

35 U.S.C. 102. Claims 1-5, 7-9, 12, 14-15, and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Burr (US 6,100,567).

Claim 1 is amended to recite: "wherein the electric field terminal region concentrates electric fields from the source and drain toward edges of a channel between the source and drain." This is supported in the specification at, for example, page 4, lines 19-21.

The Office action, p. 3, refers to an electric field terminal region 852 in FIG. 8 of Burr. However, Burr calls it "n+ well 852." Further, nothing in Burr suggests n+ well 852 concentrates electric fields from the source and drain toward edges of the channel. Indeed, Burr does not make any mention to electric fields. It is unsupported conjecture to assume that n+ well 852 concentrates electric fields as required by claim 1. Accordingly, the rejection of claim 1 and dependent claims 2 and 3 should be withdrawn.

Claim 4 is amended to recite:

"wherein the electric field terminal region is heavily doped in comparison to the doping of source and drain, and wherein the source and drain have a different type than the electric field terminal region."

This is supported in the specification at, for example, page 4, lines 21-22, and line 30; page 6, line 28 - page 7, line 2; and in FIG. 4.

By contrast, nothing in Burr suggests an electric field terminal region should be heavily doped in comparison with the source and drain. Accordingly, the rejections of claim 4 and dependent claims 5-15 and 17-19 should be withdrawn.

35 U.S.C. 103. Claims 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Houston (US 6,043,535) in view of Burr (US 6,100,567).

Claim 20 is amended to recite: "wherein the electric field terminal region concentrates electric fields from the source and drain toward edges of a channel between the source and drain."

As noted above, in connection with claim 1, this is not taught by Burr. Likewise, Houston does not mention anything about electric fields and does not teach an electric field terminal region to concentrate electric fields from the source and drain toward edges of a channel.

Accordingly, claim 20 and dependent claims 21-23 should be allowed.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Burr in view of Hwang (US 5,359,219).

Claim 6 is dependent on claim 4. For the reasons described above, claim 4 is patentable over Burr. Further, Hwang, also does not teach an electric field terminal region that is heavily doped in comparison to the doping of source and drain, and wherein the source and drain have a different type than the electric field terminal region. Accordingly, claim 6 should be allowed.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Burr in view of Burr (US 6,249,027).

Claim 10 is dependent on claim 4. For the reasons described above, claim 4 is patentable over Burr. Further, Burr ('027) also does not teach an electric field terminal region that is heavily doped in comparison to the doping of source and drain, and wherein the source and drain have a different type than the electric field terminal region. Accordingly, claim 10 should be allowed.

Claim 11 is rejected under 35 U.S.C. 102(b) as being unpatentable over Burr in view of Kumar et al. (US 6,248,626).

Claim 11 is dependent on claim 4. For the reasons described above, claim 4 is patentable over Burr. Further, Kumar also does not teach an electric field terminal region that is heavily doped in comparison to the doping of source and drain, and wherein the source and drain have a different type than the electric field terminal region. Accordingly, claim 11 should be allowed.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Burr in view of Inoue et al. (US 6,198,134).

Claim 13 is dependent on claim 4. For the reasons described above, claim 4 is patentable over Burr. Further, Kumar also does not teach an electric field terminal region that is heavily doped in comparison to the doping of source and drain, and wherein the source and drain have a different type than the electric field terminal region. Accordingly, claim 13 should be allowed.

Claim 16 is canceled.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Burr.

Claim 18 is dependent on claim 4. For the reasons described above, claim 4 is patentable over Burr. Accordingly, claim 18 also should be allowed.

It is noted that there may be reasons for patentability in addition to those mentioned above.

Respectfully submitted,

Dated: February 1, 2006

/Alan K. Aldous/
Alan K. Aldous
Reg. No. 31,905
Attorney for Intel Corporation

Blakely, Sokoloff, Taylor & Zafman
12400 Wilshire Boulevard, Seventh Floor
Los Angeles, California 90025-1026
Phone: (503) 264-7125
Phone: (503) 684-6200
Phone (310) 207-3800
Facsimile: (503) 684-3245